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module to detect network content. In the illustrated embodiments, filtering
module 112 is configured to operate with CPRL module 114, hard coded
signature module 116, and heuristics module 118. If no matches are found by
filtering module 112, the network content or file stream is then passed to CPRL
5 module 114, hard coded signature module 116, and heuristics module 118.

[0024] CPRL module 114 applies CPRL signatures to the network content to
determine if any of the CPRL signatures matches with the network content. Like
predicate logic, a signature codified using CPRL is treated as a formula made up
of logical elements and is rule-based. Unlike traditional virus signatures, which
10 are used to detect virus using byte-by-byte comparison, a signature created
using CPRL represents one or more instructions that control an operation of a
processor being used to detect content. For examples, a signature created using
CPRL may provide instructions for calling functions, pointing to a different
signature, calling an interpreter of the signature recursively, responding to a
15 returned information, and/or performing other functions. As such, CPRL is a true
pattern recognition language, and is far more powerful than traditional antivirus
signatures. CPRL language, and systems and methods of using CPRL
language, have been described in U.S. Patent Application Serial Nos.

10/624,917; 10/624,452 ^{10/624,941; 10/624,948}, all filed on July 21, 2003, the disclosures of which are expressly

20 incorporated by reference herein. In alternative embodiments, instead of using
CPRL module 114, binary scanning module 108 can include other types of
detection devices or content processors to process network content that has